

Title (en)

PERIPHERAL BLOOD BIOMARKER FOR EVALUATING ANTI-TUMOR IMMUNE EFFECT OF RADIATION THERAPY

Title (de)

BIOMARKER IN PERIPHEREM BLUT ZUR BEURTEILUNG DER ANTI-TUMOR-IMMUNWIRKUNG EINER STRAHLENTHERAPIE

Title (fr)

BIOMARQUEUR SANGUIN PÉRIPHÉRIQUE POUR ÉVALUER L'EFFET IMMUNITAIRE ANTITUMORAL D'UNE RADIOTHÉRAPIE

Publication

**EP 3928792 A1 20211229 (EN)**

Application

**EP 20759107 A 20200219**

Priority

- JP 2019028502 A 20190220
- JP 2019175852 A 20190926
- JP 2020006616 W 20200219

Abstract (en)

Provided is a peripheral blood biomarker for evaluating the antitumor immune effect of radiation therapy. Also provided is a method in which the composition of cell subpopulation in a sample obtained from a subject is used as an index for immune activation in the subject caused by a radiation therapy. By comparing, with a reference, the amount of CD4<sup>+</sup> T cell subpopulation that correlates with dendritic cell stimulation in an antitumor immune response or the amount of dendritic cell subpopulation that correlates with the dendritic cell stimulation in an antitumor immune response, the presence or absence of, and/or the magnitude of, immune activation occurring in the subject as a result of a radiation therapy can be determined.

IPC 8 full level

**A61K 39/395** (2006.01); **A61K 45/00** (2006.01); **A61P 35/00** (2006.01); **A61P 43/00** (2006.01); **C07K 16/34** (2006.01); **C12N 5/0783** (2010.01); **C12Q 1/06** (2006.01); **G01N 33/48** (2006.01); **G01N 33/53** (2006.01); **G01N 33/574** (2006.01)

CPC (source: EP US)

**A61K 45/06** (2013.01 - EP); **A61P 35/00** (2017.12 - EP); **A61P 43/00** (2017.12 - EP); **G01N 33/56972** (2013.01 - EP US); **G01N 33/57492** (2013.01 - EP US); **A61K 39/39558** (2013.01 - EP); **C07K 16/2827** (2013.01 - EP); **G01N 2333/70514** (2013.01 - EP US); **G01N 2333/70517** (2013.01 - EP US); **G01N 2333/70521** (2013.01 - EP US); **G01N 2333/70553** (2013.01 - EP US); **G01N 2333/70564** (2013.01 - EP US); **G01N 2333/70589** (2013.01 - EP US); **G01N 2800/52** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3928792 A1 20211229**; **EP 3928792 A4 20221214**; CN 113747919 A 20211203; JP WO2020171138 A1 20211223; TW 202035702 A 20201001; US 2022107324 A1 20220407; WO 2020171138 A1 20200827

DOCDB simple family (application)

**EP 20759107 A 20200219**; CN 202080029760 A 20200219; JP 2020006616 W 20200219; JP 2021502106 A 20200219; TW 109105342 A 20200219; US 202017432744 A 20200219